

THE WENTZVILLE PLAN FOR IMPROVING STUDENT ATTENDANCE
AND ITS EFFECT ON LOW-, AVERAGE-, AND
HIGH-ATTENDERS

An abstract of a Dissertation by
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The problem. The study sought answers to the following questions: (1) did student attendance improve after the implementation of the "Wentzville Plan"; and (2) did student achievement improve after the implementation of the "Wentzville Plan"?

Procedure. All students who were in attendance at Wentzville High School during both the 1976-77 and the 1977-78 school years were classified into one of three categories: (1) low-attenders; (2) average-attenders; and (3) high-attenders. Nine t-tests were run to compare student absenteeism records from the year prior to the implementation of the "Wentzville Plan" (1976-77) with student absenteeism records following the implementation of the new attendance policy. The Pearson product-moment correlation coefficient technique was used to compare changes in grade point averages and absenteeism. All students who reduced their absenteeism rate by ten or more days were interviewed to determine what the student perceived to be the major reason for the student's reduction in absenteeism.

Findings. The findings included: (1) there was an improvement in attendance records of low-attenders following the implementation of the "Wentzville Plan"; (2) there was a low correlation between improved attendance and improved student achievement; and (3) nearly one-half (46.7 percent) of the students who experienced an absenteeism reduction of ten or more days felt that the "Wentzville Plan" was a factor leading to their improved attendance record.

Conclusions. The "Wentzville Plan" for improving student attendance was most effective in reducing absenteeism among low-attenders. There was only a low correlation between improved attendance and an increase in student achievement. Nearly one-half of the students who significantly reduced their absenteeism record stated that the "Wentzville Plan" was a factor leading to their improved attendance records.

Recommendations. Further study should be done in the area of student attendance and student achievement. This study indicated only a low correlation between improved attendance and an increase in student achievement.

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A Dissertation
Presented to
The School of Graduate Studies
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In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

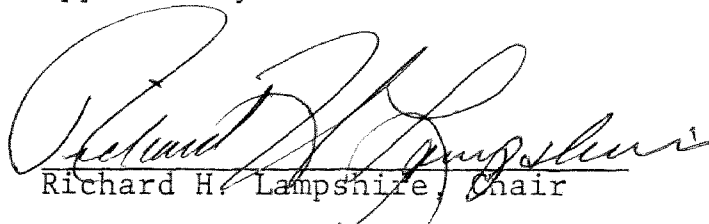
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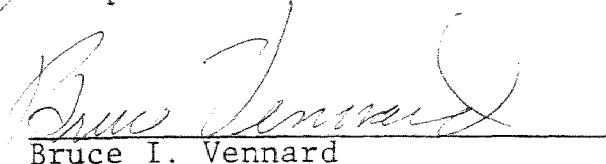
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TABLE OF CONTENTS

	Page
LIST OF TABLES	iii
Chapter	
1. INTRODUCTION	1
Purpose of Study	4
Statement of Problem	4
Description of School.	5
Limitations of Study	6
2. REVIEW OF LITERATURE	7
3. METHODOLOGY.	19
4. PRESENTATION OF DATA	23
Summary of Statistical Methods Used.	23
Hypothesis 1	24
Hypothesis 2	25
Hypothesis 3	27
Hypothesis 4	28
Student Perceptions of Changes in Their Attendance Patterns.	29
5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.	34
Summary of Findings.	35
Conclusions.	37
Recommendations.	38
BIBLIOGRAPHY	39

LIST OF TABLES

Table	Page
1. A Comparison of the Mean Number of Days Absent for Low-attenders at Wentzville High School.	25
2. A Comparison of the Mean Number of Days Absent for High-attenders at Wentzville High School.	26
3. A Comparison of the Mean Number of Days Absent for Average- attenders at Wentzville High School	27
4. A Comparison of the Differences in GPA and Absenteeism from 1976-77 to 1977-78 for Students Who were Sophomores at Wentzville High School in 1976-77.	29
5. Wentzville High School Students Whose Absenteeism Record Changed by Ten or More Days from 1976-77 to 1977-78	30
6. Reasons Cited by Wentzville High School Students for Higher Absentee Rate During the 1976-77 or the 1977-78 School Year.	31
7. Reasons Cited by Wentzville High School Students for Reduction in Absenteeism from 1976-77 to 1977-78.	32

Chapter 1

INTRODUCTION

Wentzville High School, like many other high schools in this country, was experiencing an increase in student absenteeism. The absentee rate during the 1976-77 school year was over ten percent. This high absenteeism rate meant that on any given day there were over 100 students not in attendance at Wentzville High School.

With this large number of students not in attendance each day, it was difficult for the classroom teacher to develop any kind of continuity in classroom instruction. It was also difficult to teach someone who was not present. School officials stated that since there was a close relationship between poor attendance and class failure, many of these students were not achieving at the higher level of performance expected with regular attendance.

In the state of Missouri, state funding of schools was partly based on the average daily attendance (ADA). An increasing student absentee rate meant less money from the state. At Wentzville High School, each one percent decline in attendance cost the school district over \$5,700 in lost ADA monies (11 students x \$3/day x 174 days = \$5,742).

With the above information in mind, school officials realized the need to consider a new attendance policy for

high school students. The main purposes of a new attendance policy were to: (1) improve student attendance, which in turn should help (2) improve student achievement at school. A secondary purpose was to increase the school district's ADA monies from the state.

In reviewing the literature on improving student attendance, Wentzville officials found that schools experiencing the most success in combating absenteeism were those placing more responsibility for attendance on the students and their parents. Successful attendance policies were obtained from other schools in Missouri, Iowa, Michigan, and New Mexico. Personal conferences were held between Wentzville school officials and school officials who were implementing successful attendance policies elsewhere.

A model policy was then drafted and additional input was sought from the high school faculty, student council representatives, and a random selection of 100 parents of high school students. Each group was formally surveyed, and a revised copy of a student attendance policy was presented to the Wentzville Board of Education for their formal approval.

The "Wentzville Plan" for improving student attendance was implemented at the start of the 1977-78 school year. The "Wentzville Plan" for improving student attendance appears below.

THE WENTZVILLE PLAN

Each student is expected to attend school regularly and to be on time for classes. This is necessary for the student to receive the maximum

benefits from the instructional program and to develop habits of punctuality, self-discipline, and responsibility.

It is difficult to teach someone who is not present. Thus, there is a close relationship between poor attendance and class failure. Also, employers hesitate to hire a student with poor attendance records.

Therefore, in order for a student to earn class credits the student must not only satisfy academic requirements, but also exhibit good attendance habits.

1. A student may accumulate, without penalty, a total of seven absences per class each semester. These absences are to be used for: (a) personal illness; (b) professional appointments that could not be scheduled outside the regular school day; or (c) serious personal or family problems.

2. The terms "excused" and "unexcused" will no longer be used. Notes and telephone calls are not required before or after an absence. The Attendance Office will, however, continue to make periodic calls home to verify absences.

3. After using seven absences as described in point one, a student requiring additional absences may have his/her parents appeal to the Associate Principal for an extension due to extenuating circumstances. These circumstances include, but are not limited to, the following: (a) long-term illness verified by a physician's note; (b) hospitalization; or (c) death in the immediate family.

4. Days lost due to a suspension from school are not necessarily considered sufficient reason for granting an appeal.

5. After three absences in one semester from any class period, the teacher will complete a "student absence report" indicating the dates of absence. One copy of the report will be mailed to the parents. Other copies go to the teacher, counselor, and Associate Principal.

6. After accumulating eight absences from any one class per semester, the student will NOT receive credit for the course. The student will remain in the class for the remainder of the semester and receive an attendance violation grade of "VA". (The grade of "VA" does not affect the grade point average.)

7. If the student receiving a "VA" grade is unnecessarily absent three more times, the "VA" will become an "F". (The grade of "F" lowers the grade point average.)

8. If a student is failing a class when eight absences are accumulated, the grade of "F" will be recorded (instead of "VA").

9. School sponsored or sanctioned activities are exempted from, and will not count toward, the total of eight absences which result in no credit.

10. Tardiness is defined as any appearance of a student beyond the scheduled time that class begins (unless the student is detained by a staff member). Tardiness of more than 15 minutes will be considered an absence. Three tardies to a class will also be considered as equal to one absence. Excessive and unnecessary tardies may jeopardize the student's opportunity to appeal for an absence extension.

11. Make-up work will be allowed for all absences except for those due to truancy or suspension. The student has two school days in which to make arrangements with each teacher for work missed. Teachers may request the student to remain after school to do make-up work.

12. Any student who leaves school during the school day before his/her usual dismissal time must first get approval from the Attendance Office. Leaving without approval will be considered a truancy.

13. It is extremely important that each student realize and understand that the seven absences built into this attendance policy are not to be considered as approved "skip" days, but rather should be used only as indicated by the policy. Known trancies will exclude a student from appealing for any extension based on extenuating circumstances.

14. As an incentive and reward, any student who is absent from a class less than three times during the semester may, if he/she so desires, be excused from taking the final examination in that class.

Purpose of Study

The purpose of this study was to determine if the "Wentzville Plan" improved student attendance and achievement. The results were of value not only to Wentzville High School officials, but also to officials in other schools that are facing the student absenteeism problem.

Statement of Problem

The questions to be answered by this study were: (1) did student attendance improve after the implementation of

the "Wentzville Plan"; and (2) did student achievement improve after the implementation of the "Wentzville Plan"?

The subquestions to be answered by this study were: (1) did the attendance of low-attenders improve after the implementation of the "Wentzville Plan"; (2) did the attendance of high-attenders decrease after the implementation of the "Wentzville Plan"; (3) did the attendance patterns of average-attenders change after the implementation of the "Wentzville Plan"; (4) was there a positive correlation between shifts in attendance and academic performance; and (5) were shifts in attendance patterns perceived by students as resulting from factors other than the "Wentzville Plan"?

In order to answer these questions, the following null hypotheses were tested: (1) there is no improvement in the attendance records of low-attenders following the implementation of the "Wentzville Plan"; (2) there is no increase in absences among the high-attenders following the implementation of the "Wentzville Plan"; (3) there is no change in attendance patterns of average-attenders following the implementation of the "Wentzville Plan"; and (4) there is no significant correlation between shifts in attendance and academic performance.

Description of School

Wentzville High School was a public high school located in Wentzville, Missouri. The Wentzville R-IV School District had 3,000 students in grades K-12. The high school

enrollment in 1977 was 1,100.

The school district was located thirty-five miles west of Saint Louis. It included the town of Wentzville and the bedroom community of Lake Saint Louis, as well as some rural area.

The Wentzville R-IV School District was originally considered a rural district. In the 1970's, however, the district had grown and was considered a suburban school district.

Limitations of Study

The population in this study was limited to all students who were in attendance at Wentzville High School during both the 1976-77 and the 1977-78 school years. Those students were classified into one of three categories: (1) low-attenders; (2) average-attenders; and (3) high-attenders. Data concerning the students' grade point averages and their absenteeism records were taken from their cumulative folders.

The methodology of this study is shown in detail in Chapter Three.

Chapter 2

REVIEW OF LITERATURE

As noted in the introduction, Wentzville school officials believed that student absenteeism was a major problem in their high school. The problem of student absenteeism, however, was not unique to Wentzville High School.

Each school day in the United States, approximately two and one-half million enrolled students are absent.¹ This absentee problem has proven to be a major concern to school officials throughout the country.

In the April, 1978, survey of school principals conducted by the National Association of Secondary School Principals, absenteeism was again tagged as "the most troublesome day-to-day problem in the administration of secondary schools."²

In a survey of all high school principals in the state of Tennessee, eighty-six percent of the respondents reported that student absenteeism was a major problem.³

¹Jack L. Brimm, John Forgety, and Kenneth Sadler, "Student Absenteeism: A Survey Report," NASSP Bulletin, LXII (February, 1978), 65.

²"Absenteeism: The Perpetual Problem," The Practitioner, October, 1978, p. 1.

³Brimm, p. 66.

Interestingly enough, there was no significant difference in administrative responses from principals in large, medium, and small schools.

Absences are a part of school life, the same way that adult absences are a part of the workplace. While student absenteeism is higher today than it was a generation ago, the Bureau of Labor Statistics reports that adult absenteeism has changed little in the twenty years from 1957 to 1976.¹

Health officials estimated that a "normal" absentee rate for students would be seven to nine days in a school year of 180 days.² By 1980, however, absentee rates of ten to fifteen percent were not uncommon. Some metropolitan areas reported absentee rates in the fifty percent range.³

In the past decade, many school districts across the land have totally revised their attendance policies in an effort to combat the perpetual problem of student absenteeism. Articles on this subject have been written by school officials from New York to New Mexico, from Connecticut to California. The problem of student absenteeism does exist, but so does the desire to resolve the problem.

Most of the revised attendance policies are similar to the "Wentzville Plan" in that they restrict the number of

¹"Absenteeism: The Perpetual Problem," p. 2.

²"Student Attendance and Absenteeism," The Practitioner, March, 1975, p. 1.

³LeRoy E. Whitehead and Anthony R. Marshall, "Student Absenteeism," Education Canada, XX (Spring, 1980), 29.

student absences, and they impose penalties affecting course grades or course credits on students who miss more than the allotted number of school days.

One of the first schools to adopt such a policy was Ferndale High School in Detroit, Michigan. Ferndale officials implemented their new policy during the 1973-74 school year. Students were no longer required to bring notes for absences. There was a limit of eleven allowable absences in each course each semester. Absences beyond that resulted in a loss of credit unless extenuating circumstances were involved.

During the first year of the new policy, absenteeism at Ferndale High School was reduced from fifteen percent to six percent.¹ School officials were naturally pleased. Many students also expressed satisfaction with the new policy. One senior at Ferndale commented, "It's much better than the old way. It gives responsibility to the student, and that's what education is all about."²

During the 1974-75 school year, high schools in Las Cruces, New Mexico, implemented an attendance policy based on the one in effect at Ferndale. In the new Las Cruces policy, students were allowed ten absences in a class each semester. Absences beyond that resulted in loss of credit unless extenuating circumstances were involved.

¹Dewey McCulloch, "No Excuses Wanted--Or Needed," School Management, XVIII (April, 1974), 28.

²Ibid., p. 29.

As an incentive for Las Cruces students, students who were absent from classes fewer than four times during the semester could be excused from final examinations with teacher approval.

In analyzing the success of the Las Cruces attendance policy, school officials obtained attendance data for two years prior to the implementation of the plan (1972-73 and 1973-74) and for the year in which the plan was initiated (1974-75).

These data were analyzed using a $2 \times 3 \times 3 \times 9$ factorial treatment structure. A comparison was made between the years prior to the introduction of the plan. This indicated a significant ($P < .01$) decrease in attendance percentage from 1972-73 to 1973-74.¹

The attendance in 1972-73 and 1973-74 was compared with the attendance in 1974-75. The result was an increase in attendance percentage from 1972-73 and 1973-74 to 1974-75. The percent attendance for the years 1972-73, 1973-74, and 1974-75 was 90.76 percent, 90.05 percent, and 95.62 percent, respectively.²

Similar type attendance policies elsewhere have met with similar amounts of improvement of attendance. In Cin-

¹Edward Fernandez and Manual Cardenas, "Absenteeism: Is There a Solution?" NASSP Bulletin, LX (November, 1976), 89.

²Ibid.

naminson, New Jersey, for example, attendance had improved considerably--from ninety percent to ninety-five percent.¹

At Brien McMahon High School in Norwalk, Connecticut, the daily absentee rate was nineteen percent lower during the first year of their "denial of credit" plan.²

In an inner city high school in Savannah, Georgia, attendance increased from eighty-two percent to eighty-six percent following the 1976-77 implementation of a "loss of credit" plan.³

At Bristol Eastern High School in Bristol, Connecticut, absenteeism has been reduced from twelve percent to six and one-half percent.⁴ At Maynard High School in Maynard, Massachusetts, absenteeism had been reduced from 22.9 percent to 6.3 percent.⁵ Both schools employed a "loss of credit" plan.

Administrators in schools experiencing success in the battle to curb absenteeism generally gave credit to the fact

¹Robert Byrne, "Capturing the Elusive Student: Putting Accountability Theory Into Attendance Practice," NASSP Bulletin, LXV (May, 1981), 31.

²Elio J. Garcia, "Instant Quarter-Credit Concept--An Answer to Class Cutting," NASSP Bulletin, LXIII (February, 1979), 42.

³John A. Phillips, Jr., The Attendance Nightmare, U.S., Educational Resources Information Center, ERIC Document ED 150 748, February 11, 1978.

⁴"Absenteeism: The Perpetual Problem," p. 9.

⁵Ibid., p. 10.

that "responsibility for attendance had now been shifted back to the student and the home."¹

Since administrators are concerned about reducing student absenteeism, one must wonder what benefits the administrators attach to improved attendance. Basically, the school officials wanted to encourage better class attendance to increase the opportunity for learning.

Daniel Jett, the principal at North Harford Senior High School in Pylesville, Maryland, summarized it best when he said, "It is our belief that only through regular school attendance can students progress academically at a successful rate."²

Is class attendance important? Is there a positive relationship between attendance and student achievement? Most school officials would answer "yes" to both of these questions, and a great deal of research would substantiate their assumptions.

One of the earlier studies to examine the relationship between class absences and grades was conducted in 1954 by Alexis M. Anikeeff at Oklahoma A. and M. College. Thirty-four faculty members in the School of Business and Industry sub-

¹Joseph Levanto, "High School Absenteeism," NASSP Bulletin, LIX (October, 1975), 103.

²Daniel L. Jett and Melva Lee Platt, "Pupil Attendance: The Bottom Line," NASSP Bulletin, LXIII (February, 1979), 32.

mitted a roster of 2,654 students who were enrolled in their classes. This roster indicated both the number of class absences and the final course grade for each student.

In this study, letter grades were transformed into quality point equivalents. Pearsonian coefficients of correlations were derived by placing the number of absences on the Y axis and the quality point averages on the X axis. The obtained coefficients ranged from $-.633$ to $-.962$, and in all cases were significant at either the $.05$ or $.01$ levels of confidence.¹

The median number of absences for each letter grade category was derived for all class levels. In general, for all cases and on all class levels, the median number of absences was smallest for "A" grade students, and it increased progressively through letter grades "B", "C", "D", and "F".²

In an even earlier study, F. Sandon examined the academic marks of 406 secondary male students in the term following recorded absences. In this 1938 study, Sandon found that "the quality of work was definitely affected by the number of absences during the previous term."³

¹Alexis M. Anikeeff, "The Relationship Between Class Absences and College Grades," The Journal of Educational Psychology, XLV (April, 1954), 249.

²Ibid.

³F. Sandon, "The Comparative Effect of School Progress of Many Short and One Long Absence in Secondary School," British Journal of Psychology, VIII (1938), 177.

In the 1960's, Richard Rozelle examined the grade and attendance records of students who attended Evanston Township High School in Evanston, Illinois, from 1959-62 inclusive and graduated in 1963 or 1964.

Rozelle examined the causal relationships between absences and grades. The data consisted of 12,330 grade and absence records of high school students. Rozelle concluded that "students who attend class less regularly earn lower grades."¹

In the spring of 1971, Frank H. Jenne conducted a study at Temple University to assess the relationship between class attendance and proficiency gain on a semester exam. The study was done in a single health science class section with thirty-four students.

Each student was presented with a list of specific course objectives in the form of study questions. They were told that this material would be covered in class, and that it would reappear on the semester examination. Class attendance was not required.

The results of Jenne's study indicated that class attendance correlated .799 with proficiency gain on the test. Jenne concluded that "class attendance is important."²

¹Richard M. Rozelle, "The Relationship Between Absenteeism and Grades," Educational and Psychological Measurement, XXVIII (Winter, 1968), 1,156.

²Frank H. Jenne, "Attendance and Student Proficiency Change in a Health Science Class," Journal of School Health, XLIII (February, 1973), 126.

In another research project, Brythel Brantly conducted a study to measure the effects of absenteeism upon academic achievement. The study examined student grades and absences in all English III and Algebra II classes in the nine high schools in Louisiana's Fourth Congressional District.

Brantly concluded that "there was a significant relationship between student absences and academic achievement in English III and Algebra II as measured by teacher marks."¹

K. Fogelman with the National Children's Bureau in London conducted a long-term study of all children in England, Scotland, and Wales born March 3-9, 1958. With data from the National Child Development Study, Fogelman examined the relationship between school attendance at ages seven and fifteen and reading and math scores and school behavior at age sixteen.

Fogelman summarized his results as follows.

From these findings a fairly clear, straightforward relationship between school attendance and attainment and behaviour appears in that children with high attendance lack obtain on average higher scores on tests of reading comprehension and mathematics and are less often indicated by their teachers as showing deviant behaviour.²

In the 1970's, Royal Mills conducted a study of 835 students enrolled in grades K-12 in the Corpus Christi (Texas)

¹Brythel Henry Brantly, "An Analysis of the Effects of Absenteeism Upon Academic Achievement Related to Algebra II and English III in Certain Public High Schools of Louisiana," (EdD dissertation, Northeast Louisiana University, 1972), p. 44.

²K. Fogelman, "Student Attendance, Attainment and Behaviour," British Journal of Educational Psychology, XLVIII (June, 1978), 157.

Independent School District. The purpose of Mills' study was to determine whether a significant relationship existed between attendance and academic achievement of students who were currently enrolled in the Corpus Christi public schools.

Mills' analysis indicated that "there was a significant relationship between attendance and achievement of all three levels tested--elementary, junior high, and senior high."¹

Officials at Brien McMahon High School in Norwalk, Connecticut, concurred that there was a positive relationship between attendance and achievement. Housemaster Elio J. Garcia stated, "The improved class attendance (absentee rate reduced 19 percent) has had academic ramifications of great importance. There are 25 percent fewer failing marks and 18 percent fewer failing students."²

At William J. Palmer High School in Colorado Springs, Colorado, student absenteeism had declined to the point that average daily attendance was now over ninety-five percent. School officials observed that with this increase in attendance, more students achieved honor grades and fewer students earned "D" and "F" grades.³

¹Royal Burl Mills, Jr., "A Multi-Variant Analysis of Attendance and Achievement in the Public Schools," (EdD dissertation, University of Houston, 1975), p. 63.

²Garcia, p. 42.

³"Absenteeism: The Perpetual Problem," p. 11.

In the Charlotte-Mecklenburg, North Carolina, school system, an analysis of grades and days absent for 4,000 students revealed a high correlation (0.89) between the number of days attended and the grades that were made.¹

It should be noted, however, that the correlation between the two variables--days attended and grades made--did not necessarily imply a cause-and-effect relationship. It could be that both variables were being influenced by some other factor or factors. However, correlations of this magnitude (0.89) suggest that more than half the variability in grades was directly associated with the variability in attendance.

A new report on absenteeism by Educational Research Service indicated a relationship between attendance and achievement. Among the studies summarized by the Educational Research Service were:

Twelfth grade students with five or more unexcused absences per year showed less growth in achievement on three standardized tests than did seniors with better attendance records. (Summers and Wolf, 1975)

Student grades are related significantly to attendance, though residual gains were not associated with grade point averages and attendance. (Jenne, 1973)

Eleventh grade students with higher attendance had a more responsible attitude, enjoyment of school, and success in a school setting. (Coldiron and Skiffington, 1975)²

These various reports would indicate that there generally was a significant relationship between attendance and

¹Don C. Rodgers, "Stepping Up School Attendance," NASSP Bulletin, LXIV (December, 1980), 122.

²"Absenteeism: The Perpetual Problem," p. 3.

achievement. In other words, students who attend class less regularly earned lower grades and usually showed less-than-expected learning gains. Rudolf H. Moos explained, "If students are absent, they cannot avail themselves of relevant learning opportunities. They lose the continuity of course content which is crucial for learning."¹

In reviewing the literature, student absenteeism did appear to be a problem that frustrated school officials. In response to this problem, a number of schools have revised their attendance policies, and many researchers have found that a positive relationship existed between student attendance and student achievement.

¹Rudolf H. Moos and Bernice S. Moos, "Classroom Social Climate and Student Absences and Grades," Journal of Educational Psychology, 70 (April, 1978), p. 264.

Chapter 3

METHODOLOGY

All students who were in attendance at Wentzville High School during both the 1976-77 and the 1977-78 school years were classified into one of three categories: (1) low-attenders; (2) average-attenders; and (3) high-attenders. This classification was based on the students' attendance records for the 1976-77 school year.

During the 1976-77 school year, the mean number of days absent was ten. For the purposes of this study, classifications of student attenders were arbitrarily made by adding and subtracting one-half of the mean (five) from the mean. With this in mind, the categories of student attenders were thus defined as: (1) low-attenders were those students who missed 15.5 or more days during the 1976-77 school year; (2) average-attenders were those students who missed 5 to 15 days during the 1976-77 school year; and (3) high-attenders were those students who missed 0 to 4.5 days during the 1976-77 school year. (Student absenteeism was officially recorded in half-day units.)

Data for this study was gathered from the cumulative folder of each student. The number of days absent for each student was listed. The student's grade point average for each year was listed, too.

Nine t-tests were run to test the first three null hypotheses concerning changes in attendance patterns. The .05 level of significance was used to evaluate the results. Three t-tests were run for each of the following groups of students: (1) low-attenders; (2) average-attenders; and (3) high-attenders. The t-tests compared the mean absenteeism for each group of students from the 1976-77 school year to each of the following years: (1) 1977-78 school year; (2) 1978-79 school year; and (3) 1979-80 school year. This basically compared student absenteeism records from the year prior to the implementation of the "Wentzville Plan" (1976-77) with student absenteeism records for each of the three years following the implementation of the new attendance policy.

To test the fourth null hypothesis, a correlation of the changes in grade point averages and absenteeism was made using the records of students who were sophomores in the year prior to the implementation of the plan. The differences in their grade point averages and the differences in their absenteeism were determined based on their records for the 1976-77 and the 1977-78 school years. A correlation between the differences in absences and grade point averages was determined by using the Pearson product-moment correlation coefficient technique.

The selection of this group of students was based on the assumption that these students, as sophomores in the 1976-77 school year, had already made an adjustment to high school. Freshmen during the 1976-77 school year may have

still been in the transition stage from junior high school, and their grades and attendance records that year may have been effected by this transition. Juniors during the 1976-77 school year were seniors the following year, and the "senioritis" factor may have effected their grades and attendance records during their senior year.

All students who reduced their absenteeism rate by ten or more days were interviewed to determine what the student perceived to be the major reasons for the student's reduction in absenteeism. All students who increased their absentee rate by ten or more days were interviewed to determine what the student perceived to be the major reasons for the student's increase in absenteeism.

The selection of these cut-off points for interviewing students was based on the assumption that such changes in absenteeism were not normal. Additionally, the cut-off of ten or more days was readily determined, and the number of students to be interviewed was limited to those who experienced a change of at least ten days in their absenteeism patterns.

After informing the student of the student's attendance record for both the 1976-77 and the 1977-78 school years, the interviewer asked the students: (1) were there any unusual circumstances that contributed to your high absentee rate during one of those years (e.g., hospitalization, long-term illness, death in family, or a prearranged family vacation); and (2) what effect, if any, did the "Wentzville

Plan" have on your attendance records?

The responses from the interviewees were presented in a tabular format showing what students perceived to be the major reasons for their change in attendance patterns.

The data for this study is presented in Chapter Four. The summary, conclusions, and recommendations appear in Chapter Five.

Chapter 4

PRESENTATION OF DATA

The data will be presented in the following order. First, there will be a summary of the statistical methods used to analyze the data. This will be followed by the four null hypotheses as they were listed in Chapter 1. An explanation of the results of the statistical testing will appear with each null hypothesis section. This chapter will conclude with data on student perceptions of their changes in attendance patterns.

Summary of Statistical Methods Used

Nine t-tests were used to compare mean absenteeism of low-attenders, average-attenders, and high-attenders for the years 1976-77 through 1979-80. This was adequate to supply all the information needed to test the first three null hypotheses.

The mean absenteeism for each student classification was found for all four years included in this study. The standard deviation and the standard error of the mean were found for each grouping. Next, the standard error of the difference between two means was found. Finally, the standard t-test formula was used ($t = \text{difference in means} \div \text{standard error}$).

The Pearson product-moment correlation was employed

in testing the fourth null hypothesis. The formula used is shown below. In the formula, X = difference in GPA, Y = difference in absences.

$$r = \frac{\Sigma XY - [(\Sigma X)(\Sigma Y)/N]}{\sqrt{\{\Sigma X^2 - [(\Sigma X)^2/N]\} \{\Sigma Y^2 - [(\Sigma Y)^2/N]\}}}$$

Hypothesis 1

The first null hypothesis stated that "there is no improvement in the attendance records of low-attenders following the implementation of the 'Wentzville Plan'." (Students classified as low-attenders missed 15.5 or more days during the 1976-77 school year.)

Three t-tests were run to compare mean absenteeism of low-attenders in the 1976-77 school year to their mean absenteeism in each of the following years: (1) 1977-78 school year; (2) 1978-79 school year; and (3) 1979-80 school year. The results of these t-tests are shown in Table 1.

In Table 1, the number of low-attenders in 1977-78 was 112. The number decreased to fifty-five in 1978-79 and to twenty-five in 1979-80. The original group (112) included students who were in grades nine to eleven. The subsequent reduction in the number of low-attenders was due to the fact that a number of these students graduated from or left Wentzville High School at the end of each school year. This pattern repeats itself in Tables 2 and 3.

All three t-tests were significant at the 99.9 percent level since the t-value in each case was greater than the

critical values shown in a distribution of t-probability.¹
 The null hypothesis, therefore, was rejected. There was an improvement in the attendance records of low-attenders following the implementation of the "Wentzville Plan".

Table 1

A Comparison of the Mean Number of
 Days Absent for Low-attenders
 at Wentzville High School

N	Year & mean		76-77 mean	Diff. of mean	Standard error	t-value
112	77-78	10.0313	25.4420	15.4107	1.041	14.80 ^c
55 ^a	78-79	10.2727	25.2091	14.9364	1.704	8.77 ^c
25 ^b	79-80	12.2400	22.6400	10.4000	2.458	4.23 ^c

^aStudents who returned for the 78-79 school year.

^bStudents who returned for the 79-80 school year.

^cSignificant at the .001 level.

Hypothesis 2

The second null hypothesis stated that "there is no increase in absences among high-attenders following the implementation of the 'Wentzville Plan'." (Students classified as high-attenders missed 0 to 4.5 days during the 1976-77 school year.)

Three t-tests were run to compare the mean absenteeism of high-attenders in the 1976-77 school year to their

¹N. M. Downie and R. W. Heath, Basic Statistical Methods (New York: Harper & Row, Publishers, 1974), p. 306.

mean absenteeism in each of the following years: (1) 1977-78 school year; (2) 1978-79 school year; and (3) 1979-80 school year. The results of these t-tests are shown in Table 2.

All three t-tests were significant at the 99.5 percent level (one at the higher 99.9 percent level) since the t-value in each case was greater than the critical value shown in a distribution of t-probability.¹ The second null hypothesis was rejected as there was an increase in absences among high-attenders following the implementation of the "Wentzville Plan".

Table 2

A Comparison of the Mean Number of
Days Absent for High-attenders
at Wentzville High School

N	Year & mean	76-77 mean	Diff. of mean	Standard error	t-value
227	77-78 2.7974	2.1586	-0.6388	0.199	-3.20 ^c
152 ^a	78-79 2.6941	2.0855	-0.6086	0.231	-2.63 ^c
88 ^b	79-80 3.5682	1.9943	-1.5739	0.318	-4.95 ^d

^aStudents who returned for the 78-79 school year.

^bStudents who returned for the 79-80 school year.

^cSignificant at the .005 level.

^dSignificant at the .001 level.

¹Bernard Ostle, Statistics in Research (Ames, Iowa: The Iowa State University Press, 1969), p. 528.

Hypothesis 3

The third null hypothesis stated that "there is no change in attendance patterns of average-attenders following the implementation of the 'Wentzville Plan'." (Students classified as average-attenders missed 5 to 15 days during the 1976-77 school year.)

Three t-tests were run to compare the mean absenteeism of average-attenders in the 1976-77 school year to their mean absenteeism in each of the following years: (1) 1977-78 school year; (2) 1978-79 school year; and (3) 1979-80 school year. The results of these t-tests are shown in Table 3.

Table 3

A Comparison of the Mean Number of Days
Absent for Average-attenders at
Wentzville High School

N	Year & mean		76-77 mean	Diff. of mean	Standard error	t-value
240	77-78	4.7312	8.6979	3.9667	0.284	13.99 ^c
155 ^a	78-79	5.6581	8.6290	2.9710	0.421	7.06 ^c
75 ^b	79-80	6.8800	8.7533	1.8733	0.748	2.50 ^d

^aStudents who returned for the 78-79 school year.

^bStudents who returned for the 79-80 school year.

^cSignificant at the .001 level.

^dSignificant at the .025 level.

All three t-tests were significant at the 97.5 percent level (two at the higher 99.9 percent level) since the

t-value in each case was greater than the critical value shown in a distribution of t-probability.¹ The third null hypothesis was rejected as there was a change in attendance patterns among average-attenders following the implementation of the "Wentzville Plan". There was a reduction in their mean absenteeism rate.

Hypothesis 4

The fourth null hypothesis stated that "there is no significant correlation between shifts in attendance and academic performance."

To test this null hypothesis, a correlation of the changes in grade point averages (GPA) and absenteeism was made using the 174 students who were sophomores at Wentzville High School during the 1976-77 school year. The differences in their grade point averages and the differences in their absenteeism were determined based on their records for the 1976-77 and the 1977-78 school years. A correlation between the differences was determined by using the Pearson product-moment correlation coefficient technique. Data for this is shown in Table 4.

There was a correlation of -0.2496 between the differences in grade point averages and the differences in absences. This negative relationship was considered low as it was below .300.²

¹Ibid.

²Downie and Heath, p. 97.

The null hypothesis was not rejected. Rather, it was held tenable as grade point averages increased slightly (but not significantly) while there was a decrease in student absenteeism.

Table 4

A Comparison of the Differences in GPA and Absenteeism from 1976-77 to 1977-78 for Students Who were Sophomores at Wentzville High School in 1976-77

76-77 mean GPA	77-78 mean GPA	Diff. in GPA	76-77 mean absences	77-78 mean absences	Diff. in absences
2.513	2.618	0.105	9.4425	5.5374	3.9051

Student Perceptions of Changes in Their Attendance Patterns

A total of 579 students were in attendance at Wentzville High School during both the 1976-77 and the 1977-78 school years. As shown in Table 5, ninety-two students (15.9 percent) reduced their absentee rate by ten or more days during the first year under the "Wentzville Plan". Only five students (0.9 percent) experienced an absenteeism increase of ten or more days during the first year of the "Wentzville Plan".

It should be noted that approximately two-thirds of the low-attenders (66.1 percent) reduced their absentee rate by ten or more days during the first year of the "Wentzville Plan". Less than two percent of the low-attenders (1.8 percent) experienced an absenteeism increase of ten or more days

during the first year of the "Wentzville Plan".

Table 5

Wentzville High School Students Whose Absenteeism
Record Changed by Ten or More Days
from 1976-77 to 1977-78

Student classification	Number in classification	Number increasing absences	Number reducing absences
High-attenders	227	3	0 ^a
Average-attenders	240	0	18
Low-attenders	<u>112</u>	<u>2</u>	<u>74</u>
Total	579	5	92

^aNot possible for high-attenders to reduce absenteeism by more than 4.5 days.

None of the 240 average-attenders experienced an absenteeism increase of ten or more days during the first year of the "Wentzville Plan". Eighteen average-attenders (7.5 percent) did manage to reduce their absenteeism rate by ten or more days during the first year of the "Wentzville Plan".

The ninety-seven students who experienced an absenteeism change of ten or more days were notified of their attendance records for both the 1976-77 and the 1977-78 school years. They were then asked if there were any unusual circumstances that contributed to their higher absentee rate in one of these school years. Their responses are shown in Table 6.

Table 6

Reasons Cited by Wentzville High School Students
for Higher Absentee Rate During the 1976-77
or the 1977-78 School Year

Reason	Number
Illness	26
Dislike of school	21
Hospitalization	16
Family vacations	15
No reason	10
Suspension from school	6
Left home	<u>3</u>
Total	97

The students who cut their absenteeism rate by ten or more days were asked what they perceived to be the major reason for their reduction in absenteeism. The results are shown in Table 7.

Of the ninety-two students who reduced their absenteeism by ten or more days, thirty-five (thirty-eight percent) commented that the "Wentzville Plan" was the major factor in the decline (due to the potential loss of credit or the opportunity to be excused from semester exams--both components of the new attendance policy).

Students whose absenteeism rate increased by ten or more days were also asked what they perceived to be the major reason for their increase in absenteeism. All five students

Table 7

Reasons Cited by Wentzville High School Students
for Reduction in Absenteeism from
1976-77 to 1977-78

Reason	Number
Fear loss of credit	29
Health improved	19
Not sure	17
Like school better	12
No family vacation	9
Excused from semester exam	<u>6</u>
Total	92

related that health problems were the reasons for their increase in absenteeism.

The ninety-two students who reduced their absenteeism rate by ten or more days were also asked what effect, if any, did the "Wentzville Plan" have on their attendance records. Thirty-one students (33.7 percent) felt that the "Wentzville Plan" was the primary reason for their reduction in absenteeism. Twelve other students (thirteen percent) felt that the "Wentzville Plan" was somewhat responsible for their reduction in absenteeism. The remaining forty-nine students (53.3 percent) felt that factors other than the "Wentzville Plan" were responsible for their reduction in absenteeism.

The "Wentzville Plan" was effective in reducing or limiting the rate of student absenteeism. It was especially

effective among low-attenders, as noted in Table 5. Approximately one-half of the students (46.7 percent) who experienced an absenteeism reduction of ten or more days felt that the "Wentzville Plan" was a factor leading to their improved attendance record.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to see if a new attendance policy at Wentzville High School (the "Wentzville Plan") improved student attendance and student achievement. The plan was implemented during the 1977-78 school year. Data for the study was taken from student cumulative records from the 1976-77 through the 1979-80 school years.

Subquestions to be answered by this study were: (1) did the attendance of low-attenders improve after the implementation of the "Wentzville Plan"; (2) did the attendance of high-attenders decrease after the implementation of the "Wentzville Plan"; (3) did attendance patterns of average-attenders change after the implementation of the "Wentzville Plan"; (4) was there a positive correlation between shifts in attendance and academic performance; and (5) were shifts in attendance patterns perceived by students as resulting from factors other than the "Wentzville Plan"?

Four null hypotheses were tested to answer the questions posed by this study. They were: (1) there is no improvement in attendance records of low-attenders following the implementation of the "Wentzville Plan"; (2) there is no increase in absences among the high-attenders following the implementation of the "Wentzville Plan"; (3) there is no

change in attendance patterns of average-attenders following the implementation of the "Wentzville Plan"; and (4) there is no significant correlation between shifts in attendance and academic performance.

Summary of Findings

To test the first three null hypotheses, nine t-tests were constructed. The t-tests compared mean absenteeism of low-attenders, average-attenders, and high-attenders for the school years 1976-77 through 1979-80.

Data used in testing the first null hypothesis ("there is no improvement in the attendance records of low-attenders following the implementation of the 'Wentzville Plan'") appeared in Table 1 on page 25 of this study. All three t-tests were significant at the 99.9 percent level.

The first null hypothesis was rejected as results indicated that there was an improvement in attendance records of low-attenders following the implementation of the "Wentzville Plan". (Students classified as low-attenders missed 15.5 or more days during the 1976-77 school year.)

Data used in testing the second null hypothesis ("there is no increase in absences among the high-attenders following the implementation of the 'Wentzville Plan'") appeared in Table 2 on page 26 of this study. All three t-tests were significant at the 99.5 percent level (one at the higher 99.9 percent level).

The second null hypothesis was rejected as results indicated that there was an increase in absences among high-

attenders following the implementation of the "Wentzville Plan". (Students classified as high-attenders missed 0 to 4.5 days during the 1976-77 school year.)

Data used in testing the third null hypothesis ("there is no change in attendance patterns of average-attenders following the implementation of the 'Wentzville Plan'") appeared in Table 3 on page 27 of this study. All three t-tests were significant at the 97.5 percent level (two at the higher 99.9 percent level).

The third null hypothesis was rejected as results indicated that there was a change in attendance patterns among average-attenders following the implementation of the "Wentzville Plan". Average-attenders experienced a reduction in their mean absenteeism rate. (Students classified as average-attenders missed 5 to 15 days during the 1976-77 school year.)

To test the fourth null hypothesis, a correlation was made of the changes in grade point averages and absenteeism among the 174 students who were sophomores at Wentzville High School during the 1976-77 school year. Data, as shown in Table 4 on page 29 of this study, was gathered from the 1976-77 and the 1977-78 records of these students. The Pearson product-moment correlation coefficient technique was used to test the null hypothesis.

A correlation of -0.2496 was found between the differences in grade point averages and the differences in absences. The fourth null hypothesis was not rejected. It

was held tenable. The low negative relationship indicated that grade point averages increased while there was a decrease in student absenteeism.

The final question to be answered by this study was what did students perceive to be the major reason for their reduction in absenteeism.

Data in Table 5 on page 30 of this study show that ninety-two students (15.9 percent) reduced their absenteeism by ten or more days during the first year under the "Wentzville Plan". Among these students, thirty-one (33.7 percent) stated that the "Wentzville Plan" was the primary reason for their significant reduction in absenteeism. Twelve other students (thirteen percent) stated that the "Wentzville Plan" was somewhat responsible for their significant reduction in absenteeism. The remaining forty-nine students (53.5 percent) stated that factors other than the "Wentzville Plan" were responsible for their significant reduction in absenteeism. These factors, such as illness and family vacations, were generally beyond the control of the school.

Approximately one-half of the students (46.7 percent) who experienced an absenteeism reduction of ten or more days considered the "Wentzville Plan" a factor leading to their improved attendance record.

Conclusions

This study indicated that the "Wentzville Plan" for improving student attendance was most effective in reducing absenteeism among low-attenders. The "Wentzville Plan" also

helped reduce absenteeism among average-attenders. The "Wentzville Plan" did not reduce absenteeism among high-attenders. In fact, high-attenders mean absenteeism rates rose from 2.1586 days in 1976-77 to 2.7974, 2.6941, and 3.5682 in each of the following three years.

This increase in absenteeism among high-attenders appeared to be a result of allowing students under the "Wentzville Plan" to be excused from final examinations when they missed a class less than three times a semester.

This study indicated that there was only a low correlation between improved attendance and an increase in student achievement.

This study indicated that almost one-half (46.7 percent) of the students who experienced an absenteeism reduction of ten or more days considered the "Wentzville Plan" a factor leading to their improved attendance record.

Recommendations

The "Wentzville Plan" was an effective means of reducing student absenteeism at Wentzville High School. The reduction in student absenteeism, however, did not necessarily lead to a significant improvement in student achievement.

Further study should be done in the area of student attendance and student achievement. This study indicated that there was only a low correlation between improved student attendance and an increase in student achievement.

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